

Fig.1

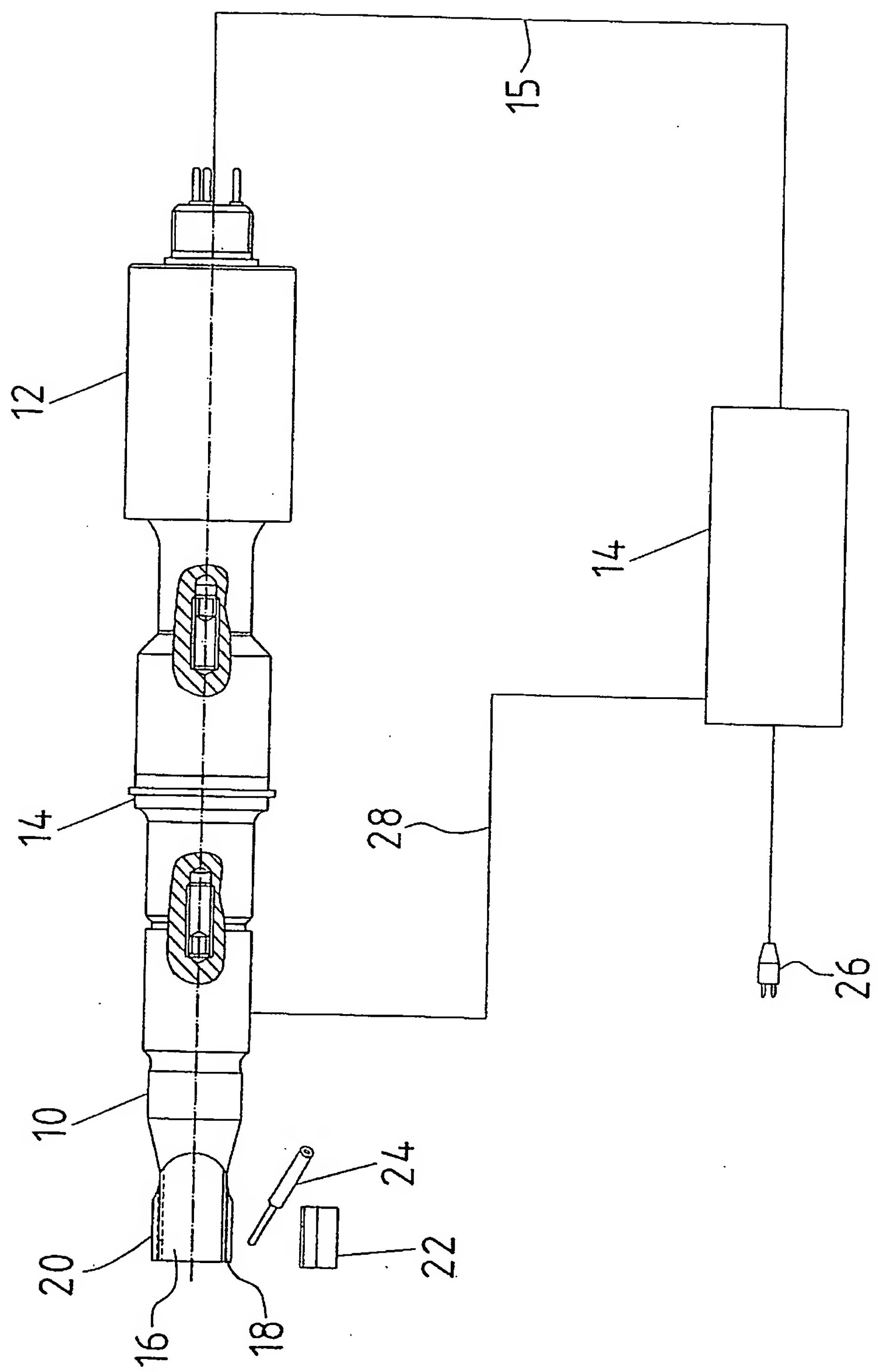
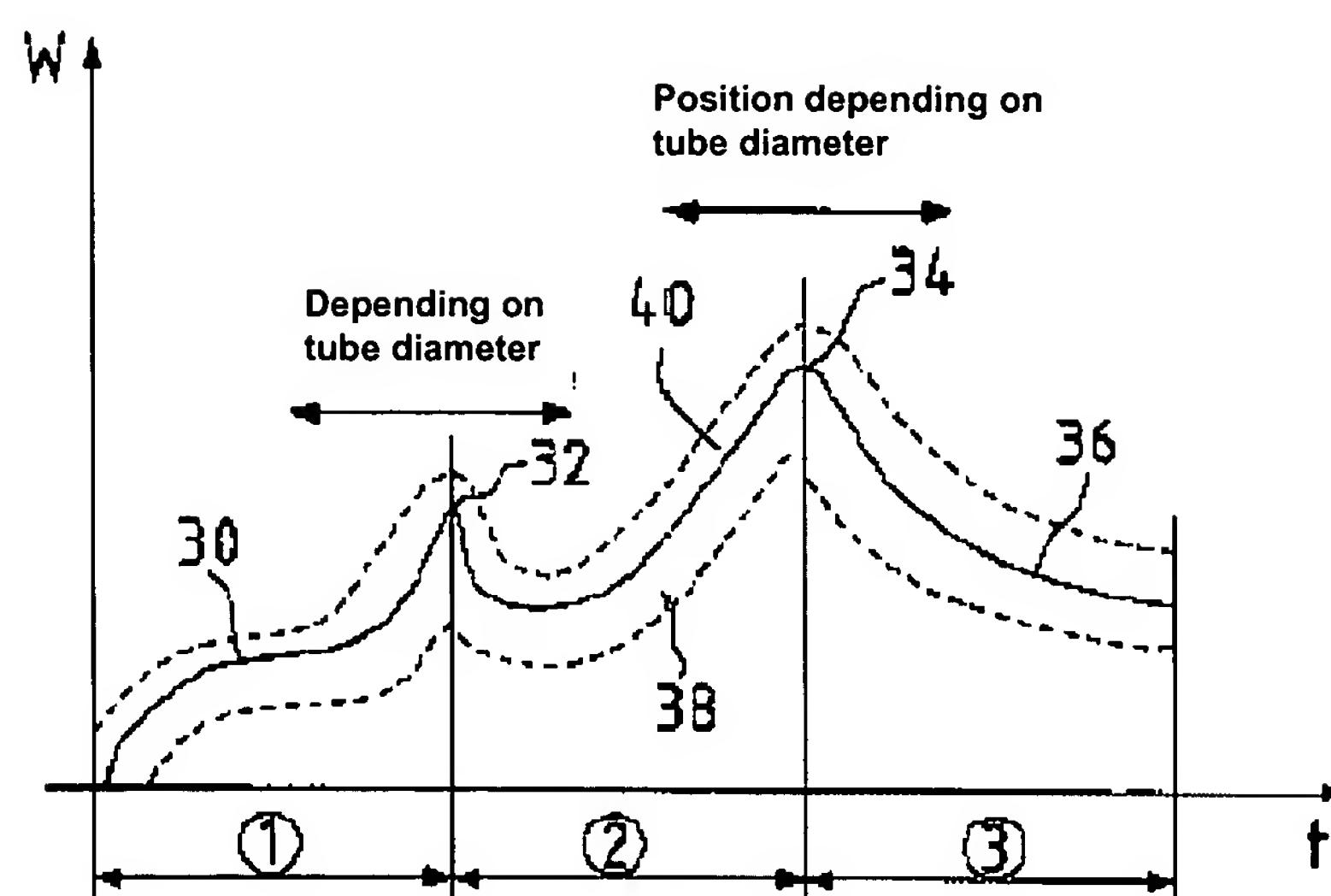


Fig. 2



Phase 1 recognize tube diameter
Phase 2 recognize wall thickness
Phase 3 (final)- welding